11/1/2

WHAT IS CLAIMED IS:

- 1. A control unit for an electric power steering apparatus that controls a motor for giving steering assist force to a steering mechanism based on a current control value calculated from a steering assist command value calculated based on the steering torque generated in the steering shaft, and a current value of the motor, wherein the control unit comprises a current dither signal generating unit for generating a current dither signal when the motor angular velocity is within a predetermined range of an angular speed ω , and for adding the current dither signal to the steering assist command value.
- 2. The control unit for an electric power steering apparatus according to Claim 1, wherein the predetermined value is the angular velocity ω of the motor corresponding to the static friction.
- 3. The control unit for an electric power steering apparatus according to Claim 2, wherein the current dither signal is expressed as K \cdot sin ω _ot, where K is a constant and ω _o represents a dither angular frequency.
- 4. The control unit for an electric power steering apparatus according to Claim 3, wherein the dither angular frequency $\omega_{\rm o}$ is a range of 30-50 Hz.
- 5. The control unit for an electric power steering apparatus

according to Claim 4, wherein the dither angular frequency ω_{o} is 40 Hz.

6. The control unit for an electric power steering apparatus according to Claim 1, wherein the angular velocity ω is obtained at a motor angular velocity estimating section which inputs a motor terminal voltage and a motor current.